

## CLAIMS

1. An artificial fiber for hair obtained from an acrylic based synthetic fiber having a single fiber size of 20 dtex to 80 dtex, the artificial fiber comprising: an optical diffusion coefficient of a fiber of not less than 0.25; and a reflectance to a white light within a range of either of following (1) or (2),

(1) a reflectance of 15% to 36% in case of a fiber with an L value of less than 21 in Hunter's Lab,

(2) a reflectance of 36% to 70% in case of a fiber with an L value of not less than 21 in Hunter's Lab.

2. The artificial fiber for hair according to Claim 1 further comprising a knot-like unevenness on a fiber surface thereof, a difference of average height between a projected area and a depressed area of 5 micrometers to 15 micrometers, and a distance between peaks of adjacent projected areas in a range of 0.05 mm to 0.5 mm.

3. The artificial fiber for hair according to 1 or 2, wherein the acrylic based synthetic fiber is obtained from a resin composition having, as a principal component, a polymer consisting of acrylonitrile 30% by weight to 85% by weight, a halogen containing monomer 14% by weight to 69% by weight, and a hydrophilic olefin based monomer having sulfonic acid group 1.0% by weight to 3.0% by weight.

4. A method for manufacturing an artificial fiber for hair using a spinning solution prepared with a resin composition having, as a principal component, a polymer consisting of acrylonitrile 30% by weight to 85% by weight, a halogen containing monomer 15% by weight to 70% by weight, and a

hydrophilic olefin based monomer having sulfonic acid group 1.0% by weight to 3.0% by weight, and an organic solvent so as to have a viscosity of 3 Pa-sec to 10 Pa-sec, the method comprising the steps of:

- 5 wet-spinning on a condition of a nozzle draft coefficient of 0.8 to 1.3, using a nozzle having a cross section shape with an L/W value for projections of 0.5 to 2.0, and having 4 to 8 projections connected in radial directions; and
- drying a fiber obtained under an atmosphere of wet heated wind
- 10 having a dry heating temperature of not less than 120 degrees C, and a wet-bulb temperature of not less than 70 degrees C, after water washing.

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